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Docket KM-M1

**SEMI-PERMEABLE MEMBRANES TO ASSIST IN
CARTILAGE REPAIR**

ABSTRACT OF THE DISCLOSURE

A semi-permeable membrane can be used to promote the surgical repair of cartilage in a damaged or diseased joint, such as a knee, hip, or shoulder. In one method, the semi-permeable membrane is secured to the "articulating" surface (the exposed surface, as opposed to the "anchoring" surface which rests on a condyle) of a resorbable fibrous matrix that has been seeded, before implantation, with chondrocyte or similar cells that generate cartilage. A membrane used in this manner can help protect the cells as they grow, reproduce, and secrete new cartilage inside the resorbable matrix. In another method, the semi-permeable membrane is secured to a slightly damaged surface of a cartilage segment that is suffering from a condition known as chondromalacia, without using an underlying implanted matrix or other device. In a slightly different use, a semi-permeable membrane as disclosed herein can be used in conjunction with a cell-growing scaffold that is being used to generate tissue to repair or supplement an internal organ, such as a liver, spleen, pancreas, or possibly a heart.

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